ABSTRACT

A detection and classification method of a shape in a medical image is provided. It is based on generating a plurality of 2-D sections through a 3-D volume in the medical image. In general, there are two steps. The first step is feature estimation to generate shape signatures for candidate volumes containing candidate shapes. The feature estimation method computes descriptors of objects or of their images. The second general step involves classification of these shape signatures for diagnosis. A classifier contains, builds and/or trains a database of descriptors for previously seen shapes, and then maps descriptors of novel images to categories corresponding to previously seen shapes or classes of shapes.